
# Fact Sheet:

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## INSTALLATION DESIGN GUIDE (IDG) AUTOMATION

### The Problem

Army installation master planners are faced with a number of decisions when trying to determine and set the aesthetic standards for an installation. One required element of an installation's master plan and a valuable resource for this decision-making process is an Installation Design Guide (IDG). When tailored to an installation's specific needs, this guide can help planners establish and maintain an efficient and aesthetically pleasing environment for Army personnel. However, many installations lack the expertise and manpower hours required to prepare an IDG, leaving few installations with site-specific design guides.

### The Technology

To deal with these problems, the U.S. Army Construction Engineering Research Laboratories (CERL) is using hypermedia computer technology to assist installations in preparing their own IDGs. This Auto IDG system will allow installation planners to quickly access guideline information in a nonlinear fashion, providing a wide range of information sources on which design decisions can be based.

For example, a planner may be trying to decide what type of gazebo to build in a specific location. By using hypermedia technology, the planner can view on a computer screen the exact location of the proposed gazebo and the adjacent land use, buildings, signage, vegetation, and architectural styles. The planner

can also open a Computer-Aided Design (CAD) generated three-dimensional image of the gazebo and project it onto a frozen image of the site. Previewing this information gives the planner the opportunity to make educated decisions about what styles and materials will fit into the existing environment.

## Benefits/Savings

The Auto IDG provides installation planners with a flexible, low-cost tool that allows efficient access to the graphically available data needed for design guidance. It can be used as a training aid and a development system for the assemblage of an IDG. This will provide the basis for determining appropriate design parameters and development of an aesthetic theme for the installation. It also gives installation decision-makers and other users an easy and understandable medium for the presentation of design guidance information. In addition, the use of computer graphics to assemble an IDG allows the user to easily make minor drawing changes.

## Status

The Auto IDG development project was initiated in the third quarter FY92. A government contract for hypermedia automated IDG development assistance was awarded to CERL and George Mason University (GMU) in January 1993. GMU developed a prototype Auto IDG which was demonstrated to MACOM and installation personnel at the U.S. Army Forces Command (FORSCOM) Headquarters in May 1993. In September 1994, a new contract delivery order was executed with GMU to upgrade the Auto IDG using current and more powerful hypermedia authoring software to enhance system operability. On August 8, 1995, the Auto IDG was delivered and set up in the offices of the Directorate of Public Works at Fort A.P. Hill, VA. During installation, directorate personnel were provided training on the use of the Auto IDG and of the hardware and software they had received. The Fort A.P. Hill Auto IDG installation will serve as a field test for this new hypermedia technology system. Other installations are also under consideration as field test sites. Fort Lee, VA, following coordination with CERL, has recently recreated their IDG in an Auto IDG format in conjunction

with a separate contract for the update and automation of their installation master plan documentation.

## Point of Contact

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